

# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

| APPLICATION NO.                                     | FILING DATE     | FIRST MANAGE DIVINION |                         | <del></del>     |  |
|---|-----------------|-----------------------|-------------------------|-----------------|--|
|   | TIENGBATE       | FIRST NAMED INVENTOR  | ATTORNEY DOCKET NO.     | CONFIRMATION NO |  |
| 10/614,830  | 07/09/2003      | Kenichi Sasaki        | 8008-1044               | 8135            |  |
|   | 7590 05/21/2004 |                       | EXAM                    | EXAMINER        |  |
| YOUNG & THOMPSON<br>745 SOUTH 23RD STREET 2ND FLOOR |                 |                       | NGUYEN, MINH T          |                 |  |
| ARLINGTON,  |                 |                       | ART UNIT                | PAPER NUMBER    |  |
|   |                 |                       | 2816                    |                 |  |
|   |                 |                       | DATE MAILED: 05/21/2004 | ı               |  |

Please find below and/or attached an Office communication concerning this application or proceeding.

|   |  | Application No.                          | Applicant(s)                      |  |  |  |  |  |
|---|--|--|-----------------------------------|--|--|--|--|--|
|   | Office Action Summary  | 10/614,830                               | SASAKI ET AL.                     |  |  |  |  |  |
|   | Office Action Summary  | Examiner                                 | Art Unit                          |  |  |  |  |  |
|   | 71.  | Minh Nguyen                              | 2816                              |  |  |  |  |  |
|   | The MAILING DATE of this c mmunication app<br>Period for Reply   | ears on the cover sheet with the         | correspondence address            |  |  |  |  |  |
|   | A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.  - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.  - Failure to reply within the set or extended period for reply will; by statute, cause the application to become ABANDONED (35 U.S.C. § 133).  - Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).  |  |                                   |  |  |  |  |  |
|   | Status   |  |                                   |  |  |  |  |  |
|   | 1) Responsive to communication(s) filed on   |  |                                   |  |  |  |  |  |
|   | 2a) ☐ This action is <b>FINAL</b> . 2b) ☒ This action is non-final.  |  |                                   |  |  |  |  |  |
|   | 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is   |  |                                   |  |  |  |  |  |
| 1   | closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.  |  |                                   |  |  |  |  |  |
|   | Disposition of Claims  | 7 (444)10, 1000 0.5. 11, 40              | 0.0.210.                          |  |  |  |  |  |
|   |  |  |                                   |  |  |  |  |  |
|   | 4) Claim(s) <u>1-13</u> is/are pending in the application.   |  |                                   |  |  |  |  |  |
|   | 4a) Of the above claim(s) is/are withdraw  | n from consideration.                    |                                   |  |  |  |  |  |
|   | / <u> </u>   |  |                                   |  |  |  |  |  |
|   | 6)⊠ Claim(s) <u>1-13</u> is/are rejected.  |  |                                   |  |  |  |  |  |
|   | 7) Claim(s) is/are objected to.  |  |                                   |  |  |  |  |  |
|   | 8) Claim(s) are subject to restriction and/or election requirement.  |  |                                   |  |  |  |  |  |
|   | Application Papers   |  |                                   |  |  |  |  |  |
| 9)⊠ The specification is objected to by the Examiner. |  |  |                                   |  |  |  |  |  |
| -   | 10)⊠ The drawing(s) filed on <u>09 July 2003</u> is/are: a)⊠ accepted or b)□ objected to by the Examiner.  |  |                                   |  |  |  |  |  |
| 1   | Applicant may not request that any objection to the description to the |  |                                   |  |  |  |  |  |
|   | Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  |  |                                   |  |  |  |  |  |
|   | Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.   |  |                                   |  |  |  |  |  |
| ١.  |  | miner. Note the attached Office          | Action or form PTO-152.           |  |  |  |  |  |
|   | Priority under 35 U.S.C. § 119   |  |                                   |  |  |  |  |  |
|   | 12) Acknowledgment is made of a claim for foreign o  | riority under 35 LLS C & 110(a)          | (d) on (5)                        |  |  |  |  |  |
|   | 12)⊠ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a)⊠ All b)□ Some * c)□ None of:   |  |                                   |  |  |  |  |  |
|   | 1.⊠ Certified copies of the priority documents have been received.   |  |                                   |  |  |  |  |  |
|   |  |  |                                   |  |  |  |  |  |
| │,  | — Application No.  |  |                                   |  |  |  |  |  |
| .   | — The state of the priority documents have been received in this National Stage  |  |                                   |  |  |  |  |  |
|   | application from the International Bureau (PCT Rule 17.2(a)).  |  |                                   |  |  |  |  |  |
|   | * See the attached detailed Office action for a list of  | the certified copies not received        |                                   |  |  |  |  |  |
|   |  |  |                                   |  |  |  |  |  |
| 1   |  |  |                                   |  |  |  |  |  |
| 1   | Attachment(s)  |  |                                   |  |  |  |  |  |
| 1   | 1) Notice of References Cited (PTO-892)  4) Interview Summary (PTO-413)  |  |                                   |  |  |  |  |  |
| . 2   | 2) Light Notice of Draftsperson's Patent Drawing Review (PTO-948)  |  |                                   |  |  |  |  |  |
|   | ) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>7/9/03</u> .  | 5)  Notice of Informal Pat<br>6)  Other: | ent Application (PTO-152)         |  |  |  |  |  |
| u.s.<br>PT  | Patent and Trademark Office OL-326 (Rev. 1-04) Office Actio  | n Summary Pa                             | art of Paner No /Mail Date 051504 |  |  |  |  |  |

Application/Control Number: 10/614,830

Art Unit: 2816

### **DETAILED ACTION**

#### Specification .

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

#### Claim Objections

2. Claims 4-5 are objected to because of the following informalities:

In claim 4, line 10, "the third up/down counter" should be changed to -- a third up/down counter -- to avoid potential antecedent basis problem.

In claim 5, line 10, "the third up/down counter" should be changed to -- a third up/down counter --.

Appropriate correction is required.

## Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Application/Control Number: 10/614,830

Art Unit: 2816

As per claim 1, the claim is indefinite because it fails to particularly point out and distinctly claim the structural relationship between the clock extracting part, the retiming clock generating part, the memory and the phase adjusting part which applicant regards as the invention. For example, without any particularly interacting between the retiming clock generating part with the rest of the elements, the retiming clock generating part cannot generate a retiming clock as recited. The claim recites no element and structure used to generate the recited "retimed input signal" so that the memory can store. In conclusion, without particularly reciting the structural relationships between these elements, they are merely a list of "catalogue of elements" vaguely coupled together, and therefore, it fails to meet the 112, second paragraph requirement.

As per claim 2, the recitation "said input signal after retiming it by the retiming clock" is unclear, i.e., it is unclear if it is referring to the "retimed input signal" recited in line 8 of claim 1 or it is a different signal. The recitation the up signal and down signal inputted from the weighting circuit on lines 16-17 is misdescriptive because it is the first up/down counter outputting this signal, not the weighting circuit, see lines 9-10.

As per claim 8, the word "it" recited on line 4 is unclear, i.e., it is unclear if it is referring to the "retimed input signal" recited in line 8 of claim 1.

As per claims 9-13, the same problem exists in each of claims 9-13 regarding the word "it" recited on line 4 of each claim.

As per claims 2-13, these claims are further rejected because of the indefiniteness of claim 1.

Application/Control Number: 10/614,830

Art Unit: 2816

#### Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by US Patent No. 5,128,939, issued to Takatori et al.

Takatori discloses a clock data recovery circuit (Fig. 1) to be used in the SONET/SDH (column 1, line 25), comprising:

a clock extracting part (the circuit block 16) for extracting an input clock (CK) from an input signal (the signal on line 11);

a retiming clock generating part (FRAME SYNCHRONIZATION CKT 18) for generating a retiming clock (CLR) for retiming said input signal;

a first-in first-out memory part (FRAME MEMORY 1) for temporarily storing the retimed input signal (8); and

a phase adjusting part (circuit blocks 2-5, 8-9 and 30-32) for preventing coincidence of a writing side address value and a reading-out side address value by controlling writing timings at the first-in first-out memory part by said retiming clock and controlling reading-out timings by said input clock (the input clock CK and the retiming clock CLR are fed to the counters 8 and 9 for generating control signals A and H to control the write control circuit 2 and the read control circuit 3 to ensure the writing and the reading actions cannot happen at the same time).

Art Unit: 2816

#### Allowable Subject Matter

5. Claims 2-13 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Claims 2-13 are allowable because the prior art of record fails to disclose or suggest the inclusion of a clock extracting part which includes elements recited in claim 2 for generating the input clock.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Minh Nguyen whose telephone number is 571-272-1748. The examiner can normally be reached on Monday, Tuesday, Thursday, Friday 7:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Callahan can be reached on 571-272-1740. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Minh Nguyen:
Primary Examiner
Art Unit 2816

5/14/04